Course Code: 20CE0105 **R20**

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
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QUESTION BANK (DESCRIPTIVE)

Subject with Code: BUILDING TECHNOLOGY(20CE0105) **Course & Branch**: B.Tech & Civil

Year & Sem: II & I **Regulation:** R20

UNIT –I
FOUNDATIONS & MASONRY

1.	a) Define foundation? What are the essentials of a good foundation?	[L1] [CO1]	[6M]
	b) Write the objectives of foundations and list the types of foundation.	[L1] [CO1]	[6M]
2.	Describe briefly spread footing with neat sketch	[L1] [CO1]	[12M]
3.	Explain briefly combined footing and its suitability with neat sketch	[L2] [CO1]	[12M]
4.	Differentiate between combined footing and mat footing	[L4] [CO1]	[12M]
5.	What are the causes of failure of foundations? What measures are to be taken to prevent such failure?	[L1] [CO1]	[12M]
6.	What is masonry? Describe briefly different terms used in masonry	[L1] [CO2]	[12M]
7.	Classify the stone masonry. Explain briefly Random rubble and Ashlar fine masonry.	[L2] [CO2]	[12M]
8.	What are various bonds in brick work? Describe briefly English bond and Flemish bond with neat sketches.	[L1] [CO2]	[12M]
9.	a) What are the defects in brick masonry?	[L1] [CO2]	[6M]
	b) What are points to be observed while supervising the brick work?	[L1] [CO2]	[6M]
10.	Differentiate between brick masonry and stone masonry	[L4] [CO2]	[12M]

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UNIT-II
FLOORS, LINTELS & ARCHES, PLASTERING AND POINTING

1.		What is the purpose of flooring and what are the materials used for construction?	[L1] [CO4]	[12M]
2.		Write short notes on Timber Flooring	[L1] [CO4]	[12M]
3.		Write short notes on Composite Flooring	[L1] [CO4]	[12M]
4.		Define Lintel and Classify various types of lintels and discuss?	[L1] [CO3]	[12M]
5.		Draw a neat sketch of an arch and explain various technical terms used in its Construction.	[L2] [CO3]	[12M]
6.		Write short notes on types of arches classified based on material?	[L1] [CO3]	[12M]
7.	a)	Define Plastering. What are the objectives or requirements of Plastering?	[L1] [CO2]	[6M]
	b)	Write short notes on types of mortars for plastering?	[L1] [CO2]	[6M]
8.		What are the methods of plastering? Explain?	[L2] [CO2]	[12M]
9.		Explain briefly about the method of pointing and its types.	[L2] [CO2]	[12M]
10.		Write short notes on various defects in plastering	[L1] [CO2]	[12M]

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UNIT-III

STAIRCASES, DOORS AND WINDOWS, ROOFS

1.		What is stair case? What are the technical terms used in construction?	[L1] [CO3]	[12M]
2.	a)	State briefly the requirements of good stair case?	[L1] [CO3]	[6M]
	b)	Classify types of stairs and Explain i) Quarter Turn Staircase ii) Half turn staircase	[L2] [CO3]	[6M]
3.	a)	Explain briefly about Dog-legged stair case with neat sketch	[L2] [CO3]	[6M]
	b)	Plan a dog legged stair for a building in which the vertical distance between the floors is 3.6m. The stair hall measures 2.5m x 5m.	[L3] [CO3]	[6M]
4.	a)	Write short notes on location of doors and windows.	[L1] [CO3]	[6M]
	b)	List out types of doors and explain briefly about Framed and Panelled door with neat sketch.	[L2] [CO3]	[6M]
5.		List out types of windows and explain any four with neat sketches.	[L2] [CO3]	[12M]
6.		Explain the following doors briefly with neat sketches i) Glazed door ii) Flush door	[L2] [CO3]	[12M]
7.		List out the types in Pitched roof and explain briefly about King post and Queen Post Trusses with neat sketches.	[L2] [CO4]	[12M]
8.	a)	State briefly essential requirements of a good roof.	[L2] [CO4]	[4M]
	b)	Explain, in brief with neat sketches i) Madras Terrace roof ii) Bengal Terrace roof	[L2] [CO4]	[8M]
9.	a)	Explain briefly about Curved roof with neat sketch.	[L2] [CO4]	[6M]
	b)	Write short notes on RCC roof with sketch?	[L1] [CO4]	[6M]
10.		What are the types in Single roof, Explain briefly?	[L2] [CO4]	[12M]

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UNIT-IV

VENTILATION & AIR-CONDITIONING, FIRE PROTECTION, ACOUSTICS OF BUILDINGS

S.NO.	DESCRIPTION OF QUESTION	Bloom Taxonomy	MARKS
1.	Explain why ventilation is required. Describe briefly the factors affecting Ventilation	[L1] [CO5]	[12M]
2.	a) What are the functional requirements of a good ventilating system ?	[L1] [CO5]	[06M]
	b) Describe briefly various types of filters for Air-conditioning	[L1] [CO5]	[06M]
3.	Summarize the Natural and Mechanical ventilation with neat sketches	[L2] [CO5]	[12M]
4.	Define Air-conditioning and state its purposes	[L1] [CO5]	[12M]
5.	Identify the causes and explain their effects of fire protection	[L1] [CO5]	[12M]
6.	Summarize the fire-resisting properties of common building materials	[L2] [CO5]	[12M]
7.	Explain the usual provisions made in the rules for fire-resisting buildings.	[L1] [CO5]	[12M]
8.	Summarize are the factors to be considered in the Acoustics of good building	[L2] [CO5]	[12M]
9.	Define Noise and list-out the effects of Noise	[L1] [CO5]	[12M]
10.	a) Describe briefly various types of Noises	[L1] [CO5]	[06M]
	b) What are factors depending up the acceptable noise levels and list-out the acceptable noise levels in various buildings	[L1] [CO5]	[06M]

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UNIT-V

MECHANICAL CONVEYORS AND SECURITY INSTALLATIONS

1.		Describe briefly the factors to be considered for planning of lift installation in various civil engineering structures	[L2] [CO6]	[12M]
2.		What are the different types of electrical lifts? Describe briefly various methods of roping systems	[L1] [CO6]	[12M]
3.	a)	Explain briefly the machine room and its equipment of lifts	[L2] [CO6]	[6M]
	b)	List-out the lift safety features and describe briefly	[L2] [CO6]	[6M]
4.		An office block with 20 storeys above ground floor having unified starting and stopping times is to have a floor area above the ground floor of 8000 m^2 and floor pitch of 3 m. A group of four lifts, each car having a capacity of 20 persons and a car speed of 2.5 m/s are specified. The clear door width is to be 1.1 m and the doors are to open at a speed of 0.4 m/s. Estimate the interval for the group.	[L4] [CO6]	[12M]
5.	a)	Write the special provisions for firefighting lifts and building regulations	[L3] [CO6]	[6M]
	b)	An escalator inclined at 35 degrees, operating with one person per 400mm step at a speed of 0.65 m/s calculate the number of persons moved per hour.	[L4] [CO6]	[6M]
6.	a)	Write the importance of security installations for various buildings	[L3] [CO6]	[6M]
	b)	Describe briefly micro switch and magnetic reed detectors	[L2] [CO6]	[6M]
7.		Discuss how Radio sensor , pressure mat and taut wiring detectors are security for various buildings	[L2] [CO6]	[12M]
8		Explain briefly Acoustic, Vibration and Inertia detectors	[L2] [CO6]	[12M]
9		List-out the space protection detectors and explain briefly ultrasonic and microwave detectors	[L1] [CO6]	[12M]
10.	a)	What are infra-red detectors and discuss the working principle	[L1] [CO6]	[6M]
	b)	Write brief note on lighting protection systems	[L1] [CO6]	[6M]

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